



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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August 31, 1989

Gregg Kellogg
U. S. Environmental Protection Agency
Region X
1200 Sixth Avenue
Mail Stop WD-135
Seattle, Washington 98101

Dear Mr. Kellogg:

Dan Cargill, Barb Trejo and I have reviewed the sampling plan for the sediments at Unimar's Lake Union facility.

The sample collection section isn't very specific. We're not comfortable with that, but we can defer comments until the QA/QC plan mentioned on page 7 is submitted.

As I said on the phone, the detection limits for cadmium, copper, lead and mercury are above fresh water acute and chronic criteria. One objective of the study is to convince the regulatory community that a no action alternative is acceptable. I won't be convinced of that if detection limits are above water quality criteria, particularly in a lake that has made the 304(1) list.

Detection limits for chromium, nickel and silver in sediments are higher than proposed criteria for marine sediments. Contaminated fresh water sediments may or may not have a greater impact than the marine sediments. We are uncomfortable with sediment detection limits.

Sample 1E is the only sample getting a bioassay without a total metal analysis. If the bioassay indicates a problem, a metal screen may not answer why.

In a sediment environment, we are not sure if there are interferences with the Total Petroleum Hydrocarbon analysis, thin layer chromatography. Has an EPA chemist reviewed this plan?

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The plan should reference the most recent ASTM draft for bioassay and sampling protocols and QA/QC procedures. ASTM's fourth draft of the appropriate documents is being issued and should be used with the permission of the subcommittee chairman.

Thank you for the opportunity to comment on this plan.

Sincerely,

A handwritten signature in dark ink, appearing to read "Richard A. Koch". The signature is written in a cursive style with a horizontal line underneath the name.

Richard A. Koch, P.E.
Water Quality Section
Washington Dept. of Ecology

RK:rk